

# PRIMERGY RX220

## *System configurator and order-information guide*

January 2006

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**PRIMERGY Server**

# Instructions

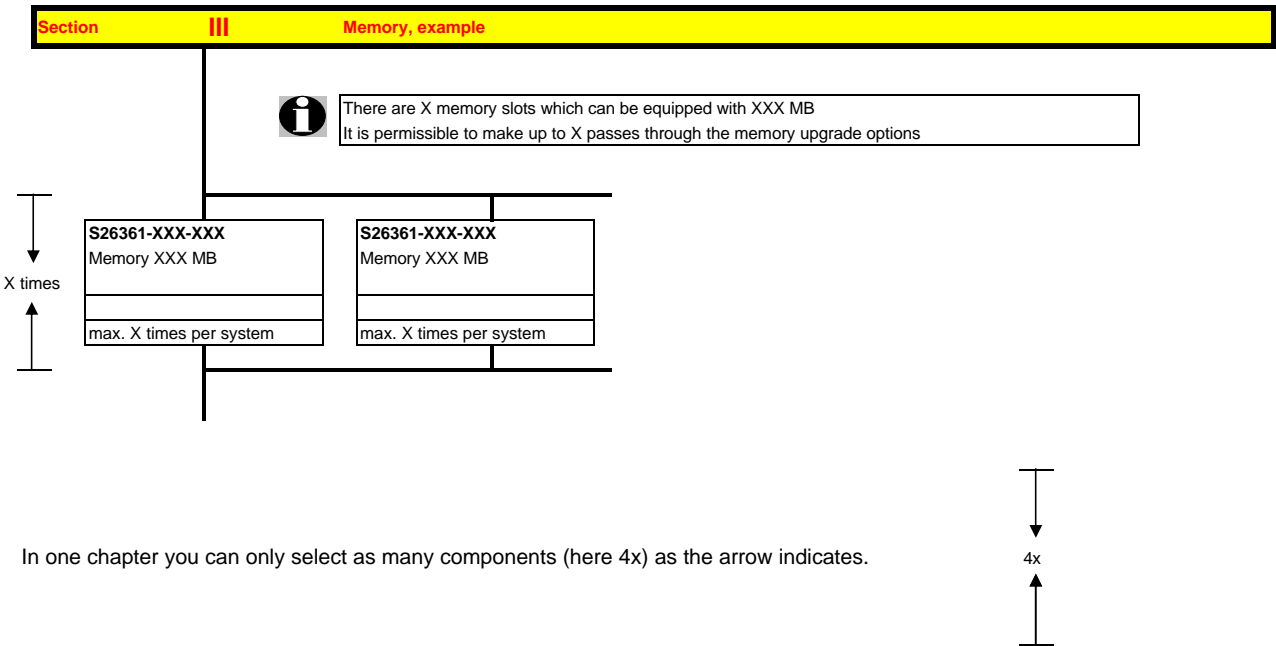
This document contains basic product and configuration information that will enable you to configure your system via PC-/System-Architect

Only these tools will ensure a fast and proper configuration of your PRIMERGY server or your complete PRIMERGY Rack system.

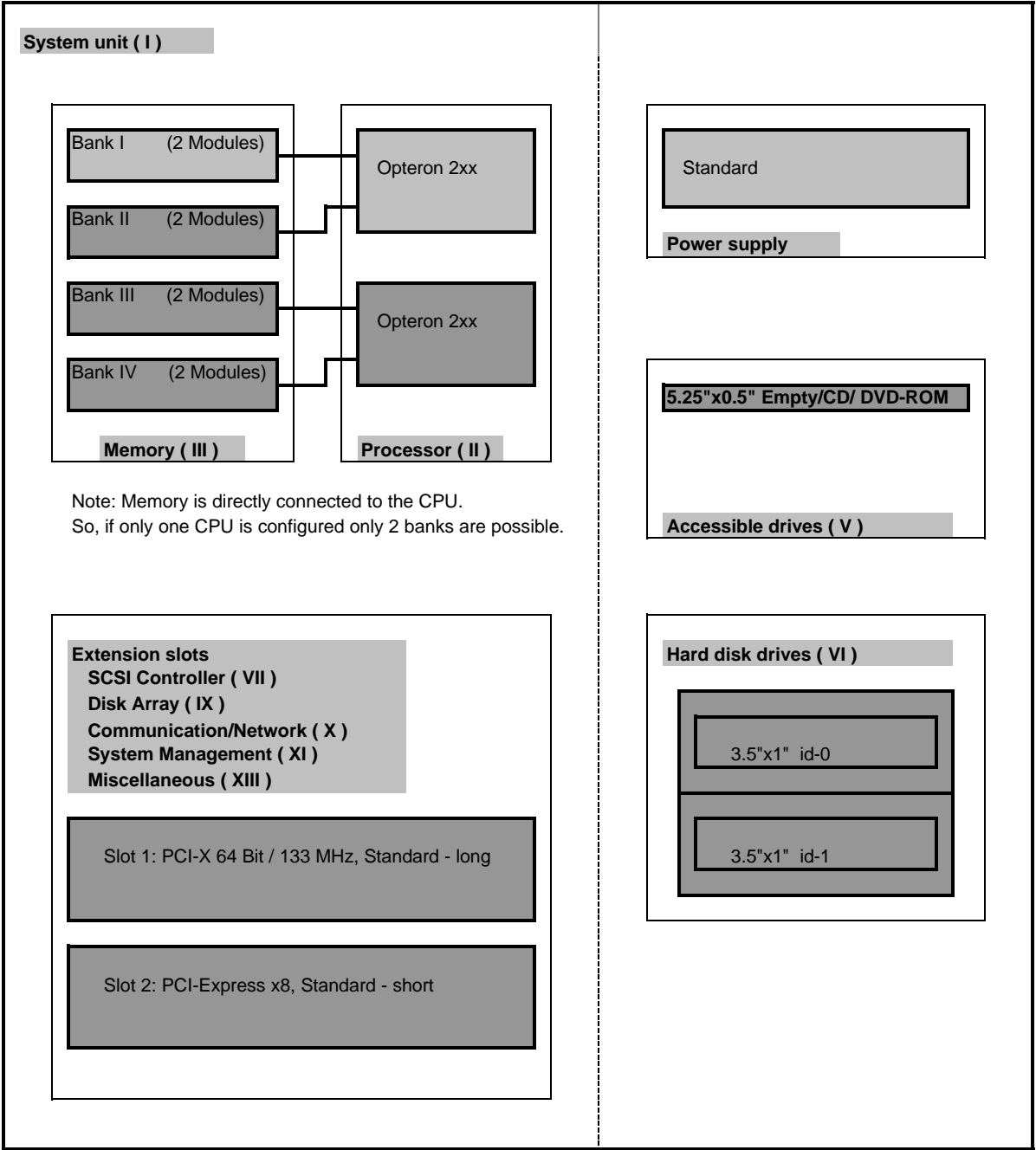
You can configure your individual PRIMERGY server in order to adjust your specific requirements.

The System configurator is divided into several chapters that are identical to the current price list and PC-/System-Architect.

Please follow the lines. If there is a junction, you can choose which way or component you would like to take. Go through the configurator by following the lines from the top to the bottom.



Configuration diagram PRIMERGY RX220



Start PRIMERGY RX220

**SW - Configurator 32 bit**

**with OEM-Software**  
for PRIMERGY Server



Usage of OEM SW from MS is not possible under ESX or GSX

**without OEM-Software**  
for PRIMERGY Server

Later use of OEM operating system software is not allowed, apart from few VMware add-ons

**VMware-Software**

- VCMS VirtualCenter Management Server
- GSX Server and GSX Virtual Infrastructure Node
- P2V Assistant Enterprise Edition



For all SW products please refer to the corresponding software configurator accessible via the Extranet under Configuration & Tools, -All configurations, -Software, URL see below.

**Microsoft - Software: W**

- Windows Server 2003, Web Edition (only English)
- Standard Edition
- Enterprise Edition
- Additional loose Client-Access-Licenses (CALs) (not for Web Edition)

**Linux - Software: L \*\*)**

- SuSE Linux Enterprise Server
- Red Hat Enterprise Linux

**CITRIX-Software for Windows: W-MF**

- Presentation Server
- LoadBalancing
- Additional User Licences

**Adaptive Services Control Center (ASCC)\*)**

- ASCC Satellite Node
- SLES, RHEL, W2K3

**Manageability Software: V\*\*)**

- RemoteView Software
- RemoteView Service Board
- RemoteView Diagnosis
- RemoteDeploy
- vPMS 2005std
- Altiris Server Deployment



Details eg. version numbers are published on the page referred to



\*) Pay attention to the ASCC release and ordering information in the Extranet under <http://extranet.fujitsu-siemens.com/ascc>



\*\*) Pay attention to release and order information in PRINCE -> Operating System [http://vil.mch.fsc.net/vil/pc/vil/primergy/overview/prince/index\\_en.htm](http://vil.mch.fsc.net/vil/pc/vil/primergy/overview/prince/index_en.htm)

**Backup-Software / Application-Software: U**

- ARCserve
- openSM2

**You'll find single software configurators and release lists (OS-matrix / system management / security) under following addresses:**

for internal users: [http://vil.mch.fsc.net/vil/oec/special/primergy/index\\_en.htm](http://vil.mch.fsc.net/vil/oec/special/primergy/index_en.htm)  
for partners: [http://vilpart.fujitsu-siemens.de/vil/oec/special/primergy/index\\_en.htm](http://vilpart.fujitsu-siemens.de/vil/oec/special/primergy/index_en.htm)

**Continue with PRIMERGY  
HW configurator**

Start PRIMERGY RX220

**SW - Configurator EM64T**

**with OEM-Software**  
for PRIMERGY Server

**without OEM-Software**  
for PRIMERGY Server



For all SW products please refer to the corresponding software configurator accessible via the Extranet under "Configuration & Tools, -All configurations, -Software, URL see below.

Later use of OEM operating system software is not allowed.

<b>only EM64T</b>	<b>Microsoft - Software: W</b> - Windows Server 2003, x64 Standard Edition - x64 Enterprise Edition - Additional loose Client-Access-Licenses (CALs)
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<b>only EM64T</b>	<b>Linux - Software: L *) **)</b> - SuSE Linux Enterprise Server - Red Hat Enterprise Linux
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**only EM64T** VMware GSX Server and GSX Virtual Infrastructure Node

<b>only EM64T</b>	<b>Manageability Software: V**)</b> - RemoteView Software - RemoteView Service Board - RemoteView Diagnosis
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Details eg. version numbers are published on the page referred to



\*) Pay attention to the PRIMECLUSTER release and ordering information in the Extranet under <http://extranet.fujitsu-siemens.com/primecluster>



\*\*) Pay attention to release and order information in PRINCE -> Operating System [http://vil.mch.fsc.net/vil/pc/vil/primergy/overview/prince/index\\_en.htm](http://vil.mch.fsc.net/vil/pc/vil/primergy/overview/prince/index_en.htm)

**You'll find single software configurators and release lists (OS-matrix / system management / security) under following addresses:**

for internal users: [http://vil.mch.fsc.net/vil/oec/special/primergy/index\\_en.htm](http://vil.mch.fsc.net/vil/oec/special/primergy/index_en.htm)  
for partners: [http://vilpart.fujitsu-siemens.de/vil/oec/special/primergy/index\\_en.htm](http://vilpart.fujitsu-siemens.de/vil/oec/special/primergy/index_en.htm)

**Continue with PRIMERGY HW configurator**

## Section

## Basic unit

**System unit consisting of:****\* 1U Housing including standard power supply****\* Fans**

- Fans for Power Supply and Chassis

**\* Drives / Bays**

- 2 bays 1" for SATA hot-plug or "easy change" HD
- 1 bay (for accessible drives) with
  - 1 IDE-CD- or DVD- or CD-RW-ROM 0,5" height

**Systemboard with:**

- Dual Processor Board with Opteron 940 pin socket (s. section II)
- 8 memory slots (s. section III)
- SATA RAID controller on-board (s. section IX)
- Dual LAN on-board 10/100/1000TX (s. section X)
- Graphics controller (s. section IV)
- 2 PCI Slots:
  - 1x PCI-X 64 Bit / 133 MHz standard long
  - 1x PCI-Express x8 standard short 1xx mm
- BMC (Baseboard Management Controller) Servermanagement Chip on board

**External Interfaces:**

- 1x RS-232-C (serial, 9 pins) (usable for BMC or OS or shared)
- 1x keyboard (PS/2)
- 1x mouse (PS/2)
- 1x VGA (15 pins)
- 4x USB 2.0 (2x front and 2x rear)
- 2x LAN RJ45

**Cables:**

1. IDE cable for CD/DVD.
2. SATA cables for up to 2 internal HDDs
3. Power cable

**Software:**

- ServerStart packet incl. ServerBooks CD, ServerSupport CD and ServerView
- Documentation engl. (multilingual on CD)

**Mounting kit for PRIMERGY RX220 is part of the basic unit**

- 1 pair of telescopic rails (650 - 790mm)
- 1 bracket DC-PC-Rack

**Mounting kit for mounting of servers in in FSC 19" PRIMECENTER- racks  
and all server racks conforming to EIA standard EIA-310-D for 19" racks.**

**Therefore the mounting kit is variable in depth from 650 - 790mm**

**Cables included in basic unit**

Connections	Cable	PRIMERGY RX220
1. IDE CD/DVD		
2. SATA cables HDDs		
3. Power cable		

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All Basic units include a pair of identical Memory Modules.  
Maximum Memory expendability depends on chosen base unit!

1U Rack server for 19" racks

Basic unit with:

- 1x Opteron ( 1MB SLC ) single core processor

Opteron 244 (1.80 GHz)

Opteron 244 1MB 1GB	S26361-K986-V121
Opteron 244 1MB 2GB	S26361-K986-V122
Opteron 244 1MB 4GB	S26361-K986-V124

Opteron 246 (2.00 GHz)

Opteron 246 1MB 1GB	S26361-K986-V131
Opteron 246 1MB 2GB	S26361-K986-V132
Opteron 246 1MB 4GB	S26361-K986-V134

Opteron 248 (2.20 GHz)

Opteron 248 1MB 1GB	S26361-K986-V141
Opteron 248 1MB 2GB	S26361-K986-V142
Opteron 248 1MB 4GB	S26361-K986-V144

Opteron 250 (2.40 GHz)

Opteron 250 1MB 1GB	S26361-K986-V151
Opteron 250 1MB 2GB	S26361-K986-V152
Opteron 250 1MB 4GB	S26361-K986-V154

Opteron 252 (2.60 GHz)

Opteron 252 1MB 1GB	S26361-K986-V161
Opteron 252 1MB 2GB	S26361-K986-V162
Opteron 252 1MB 4GB	S26361-K986-V164

Opteron 254 (2.80 GHz)

Opteron 254 1MB 1GB	S26361-K986-V171
Opteron 254 1MB 2GB	S26361-K986-V172
Opteron 254 1MB 4GB	S26361-K986-V174

1U Rack server for 19" racks

Basic unit with:

- 1x Opteron ( 2x 1MB SLC ) dual core processor

Opteron 265 (1.8 GHz)

Opteron 265 2x 1MB 1GB	S26361-K986-V211
Opteron 265 2x 1MB 2GB	S26361-K986-V212
Opteron 265 2x 1MB 4GB	S26361-K986-V214

Opteron 270 (2.0 GHz)

Opteron 270 2x 1MB 1GB	S26361-K986-V221
Opteron 270 2x 1MB 2GB	S26361-K986-V222
Opteron 270 2x 1MB 4GB	S26361-K986-V224

Opteron 275 (2.2 GHz)

Opteron 275 2x 1MB 1GB	S26361-K986-V231
Opteron 275 2x 1MB 2GB	S26361-K986-V232
Opteron 275 2x 1MB 4GB	S26361-K986-V234

PRIMERGY Rack

S26361-F1647-E302

Installation ex works for one  
server or subsystem.

Hereby the rack will be delivered  
completely pre-mounted and  
all wired connections are tested.

With racks 12U, 24U, 38U:

Systems and components  
will be delivered installed in the rack

With racks 46U:

Systems and components  
will be delivered separately

To be ordered only together with  
a PRIMERGY PRIMECENTER rack

e.g.:

S26361-K826-V10x

refer configurator PC-Rack

max. 1x per System



S26361-F1331-L200

Mounting kit for PRIMERGY19" Classic rack

RMK CR RX220 complete for mounting in PRIMERGY Classic racks

It is necessary to leave one height unit between each server in  
order to arrange the cables. Restrictions from the Inform:

prim\_racks\_0603 are to be fulfilled.



"Rack-mounting ex factory"

This service is to be ordered once  
per installable server/storage  
subsystem, in order to get the  
server/storage subsystem  
mounted into the PRIMERGY racks.  
In case of the 46 U PRIMERGY Rack,  
this service has to be ordered,  
to get the mounting kits and the  
cables installed.

B

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**Section II Processor**



There are 2 processor 940 pin sockets available. One CPU is included in each basic unit.  
It is also possible to upgrade a dual-processor system later on.  
**Two processors with different clock frequencies or different caches are not possible.**  
A multi-processor operating system is required for a dual-processor system.

**2nd. CPU**

<b>S26361-F3167-E244</b> Opteron 244 with 1.8 GHz with 1MB SLC on Chip (SLC=Second Level Cache) and passive heat sink occupies CPU socket max. 1x per system	<b>S26361-F3167-E246</b> Opteron 246 with 2.0 GHz with 1MB SLC on Chip (SLC=Second Level Cache) and passive heat sink occupies CPU socket max. 1x per system	<b>S26361-F3167-E248</b> Opteron 248 with 2.2 GHz with 1MB SLC on Chip (SLC=Second Level Cache) and passive heat sink occupies CPU socket max. 1x per system
<b>S26361-F3167-E250</b> Opteron 250 with 2.4 GHz with 1MB SLC on Chip (SLC=Second Level Cache) and passive heat sink occupies CPU socket max. 1x per system	<b>S26361-F3167-E252</b> Opteron 252 with 2.6 GHz with 1MB SLC on Chip (SLC=Second Level Cache) and passive heat sink occupies CPU socket max. 1x per system	<b>S26361-F3167-E254</b> Opteron 254 with 2.8 GHz with 1MB SLC on Chip (SLC=Second Level Cache) and passive heat sink occupies CPU socket max. 1x per system
<b>S26361-F3167-E265</b> Opteron 265 with 1.8 GHz with 2x 1MB SLC on Chip (SLC=Second Level Cache) and passive heat sink occupies CPU socket max. 1x per system	<b>S26361-F3167-E270</b> Opteron 270 with 2.0 GHz with 2x 1MB SLC on Chip (SLC=Second Level Cache) and passive heat sink occupies CPU socket max. 1x per system	<b>S26361-F3167-E275</b> Opteron 275 with 2.2 GHz with 2x 1MB SLC on Chip (SLC=Second Level Cache) and passive heat sink occupies CPU socket max. 1x per system

**Section III Memory**



There are 8 memory slots available (4 banks, each bank consists of two slots => 2 modules per bank are necessary).  
They can optionally be equipped with 512MB, 1GB, 2GB (or 4GB if available) registered DDR 400 PC3200 SDRAM modules.  
In every basic unit the first memory bank is already equipped with either 1GB, 2GB or 4GB memory,  
so the memory extensions can still be configured up to three times for the second, third and fourth memory bank.  
**Note: Memory is directly connected to the CPU. So, if only one CPU is configured only 4 modules are possible.**  
Then 1x memory extension can be ordered. For a Dual CPU configuration 3x memory extension can be ordered.  
**Maximum configurable memory extension is 16 GB (or 28GB when 4 GB modules are available), depending on basic unit.**  
ECC with memory scrubbing and Chipkill is standard for RX220.

<b>S26361-F3166-E521</b> Main memory 1GB PC3200 registered DDR RAM consisting of two modules occupies 2 slots / 1 bank max. 1x or 3x per system	<b>S26361-F3166-E522</b> Main memory 2GB PC3200 registered DDR RAM consisting of two modules occupies 2 slots / 1 bank max. 1x or 3x per system
<b>S26361-F3166-E523</b> Main memory 4GB PC3200 registered DDR RAM consisting of two modules occupies 2 slots / 1 bank max. 1x or 3x per system	<b>S26361-F3166-E524</b> Main memory 8GB PC3200 registered DDR RAM consisting of two modules occupies 2 slots / 1 bank max. 1x or 3x per system

as soon as available

1x or 3x

**Section IV Graphics**

Graphics controller on-board (ATI Radeon, 16MB)

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## Section V Accessible drives



Setup RX220 by **ServerStart** is supported with following configurations:

**no Floppy, no DVD, no CD:**

remote installation only ( PXE service & DHCP server required)

**built in CD/DVD or USB CD/DVD, no Floppy disk drive:**

UNC Network share reachable or USB Floppy connected

**USB Floppy, no CD/DVD:**

USB CD/DVD connected



One of the following **USB** devices **must be used** for integrating the drivers during installation process if no automatized (e.g. Serverstart / Altiris / RIS / ADS / ...) installation is done:

1) USB DVD-ROM: Traveller III DVD-ROM drive	S26391-F3152-L200 (USB cable included)
2) USB DVD+-RW: Traveller III DVD DL super multi drive	S26391-F3152-L300 (USB cable included)
3) FDD USB (external): external USB FDD	S26391-F264-L226 (USB cable included)
4) USB Keyboard: KBPC PX D, professional keyboard	S26381-K340-V120
5) USB Mouse: Optical Wheel Mouse	S26381-K403-L100
6) USB Memorybird: Memorybird 256 MB	S26391-F6046-L256
Memorybird 1GB	S26391-F6046-L24

**SNP:SY-F2313E1-P**

CD-ROM 0,5" 24xATAPI

Connector: LD50

incl. description (Ger/US)

0.5" x 5.25", anthracite bezel

max. 1x per system

**S26361-F3123-E1**

CD-RW / DVD drive 0.5"

24/24/24x / 8x ATAPI

only W2K, W3K and Linux

0.5 x 5.25", anthracite bezel

max. 1x per system

**S26361-F3236-E1**

DVD-RW 8x super multi drive

all formats, DUAL/DL, DVD-RAM

only W2K, W3K and Linux

0.5 x 5.25", anthracite bezel

max. 1x per system

## Section VI Hard disk drives



Every base unit is prepared for easy change SATA standard hard disks.

An option for hot plug hard disks is possible to order.

<b>S26361-F3219-E80</b>
Hard disk 80GB SATA standard
7.200 rpm, <9,0 ms, 8MB Cache
<b>SATA 3Gb/s</b>
easy change
occupies 1" bay
max. 2x per system

<b>S26361-F3219-E160</b>
Hard disk 160GB SATA standard
7.200 rpm, <9,0 ms, 8MB Cache
<b>SATA 3Gb/s</b>
easy change
occupies 1" bay
max. 2x per system

<b>S26361-F3219-E250</b>
Hard disk 250GB SATA standard
7.200 rpm, <9,0 ms, 8MB Cache
<b>SATA 3Gb/s</b>
easy change
occupies 1" bay
max. 2x per system

<b>S26361-F3199-E1</b>
Upgrade kit hot-plug hard disks
including SATA backplane
max. 1x per system

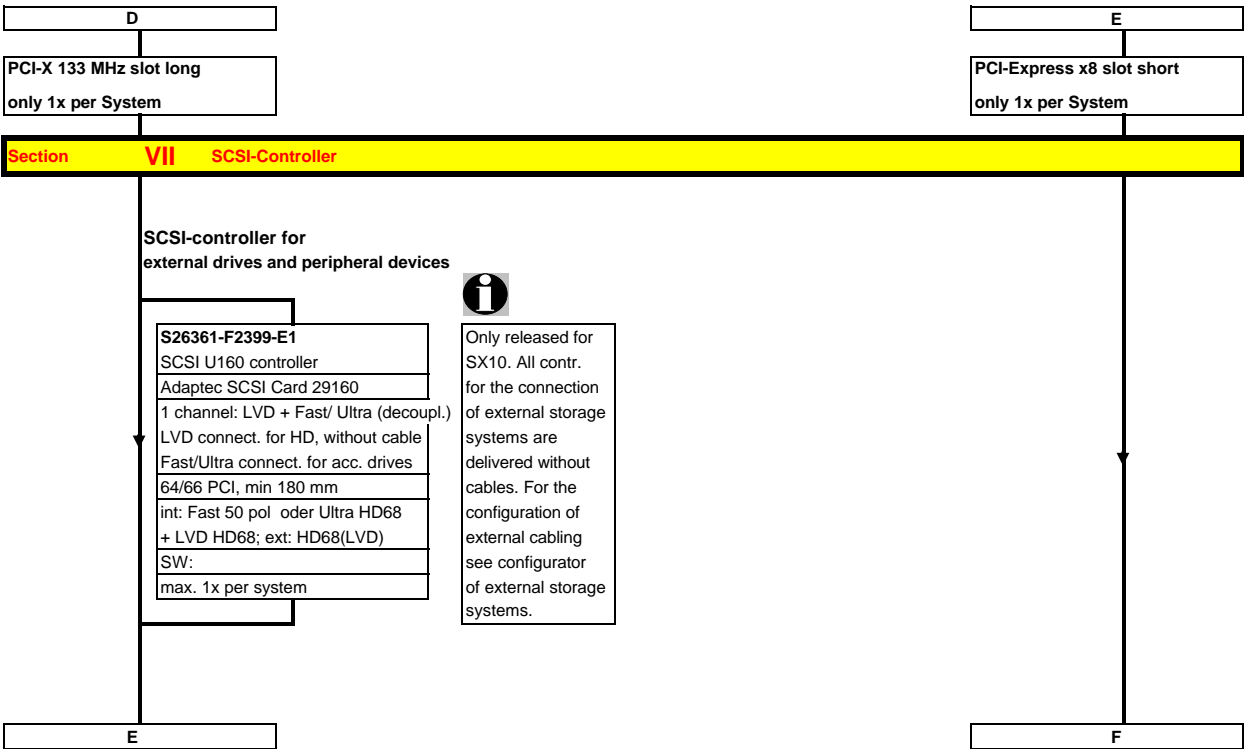
max. 2x

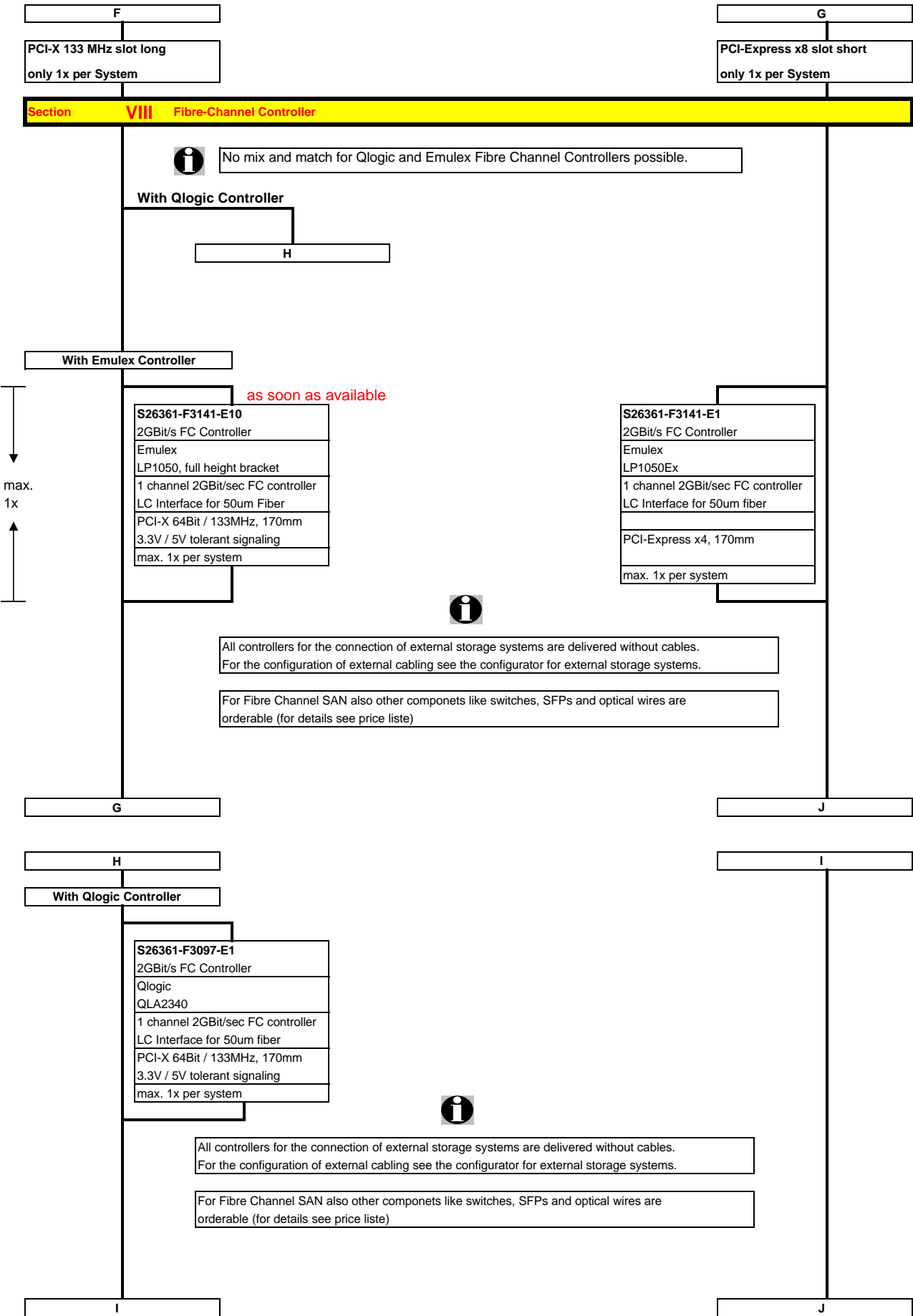
<b>S26361-F3218-E80</b>
Hard disk 80GB
7200rpm,<9.0 ms, 8MB Cache
<b>SATA 3Gb/s</b>
hot plug/hot replace tray
occupies 1" bay
max. 2x per system

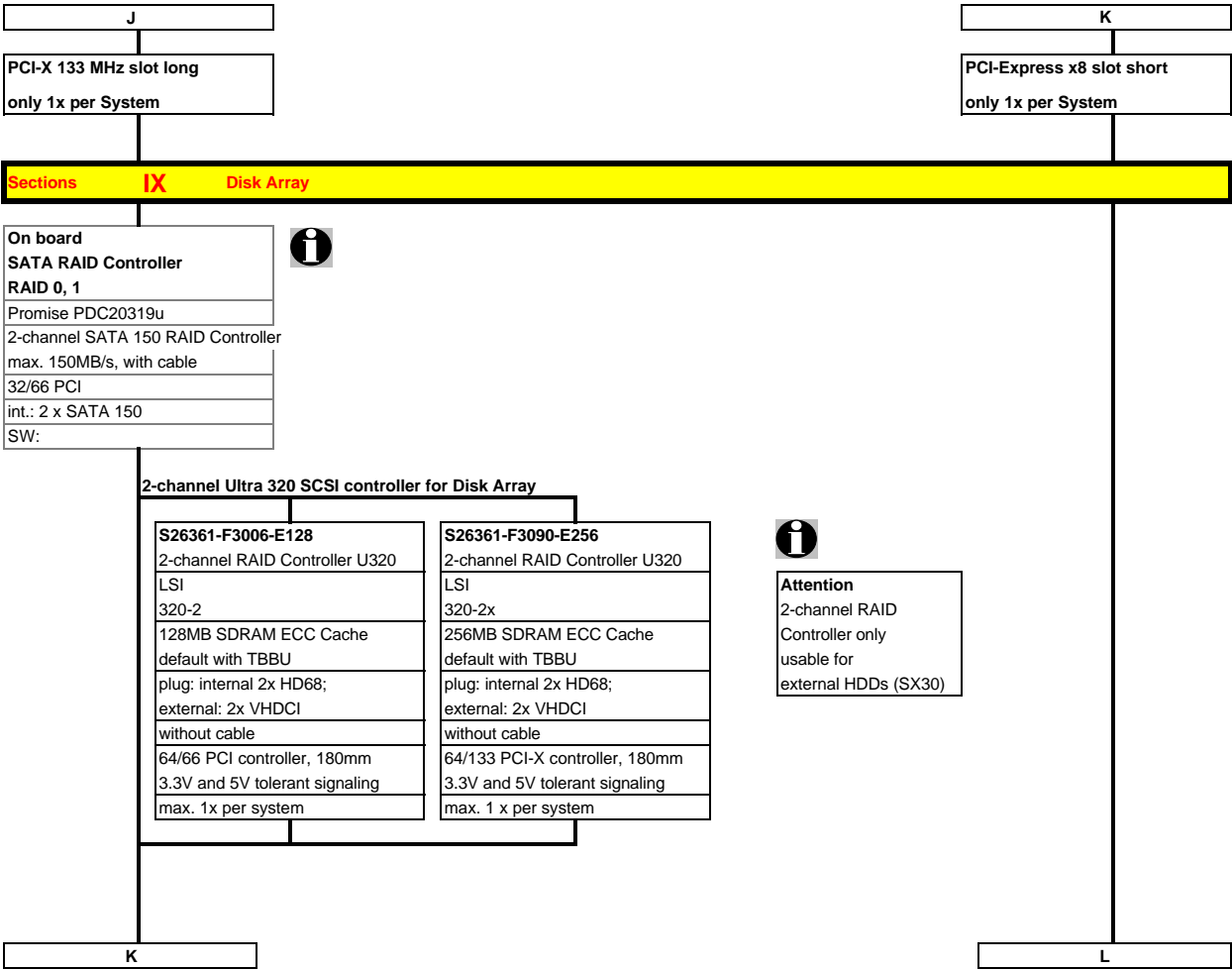
<b>S26361-F3218-E160</b>
Hard disk 160GB
7200rpm,<9.0 ms, 8MB Cache
<b>SATA 3Gb/s</b>
hot plug/hot replace tray
occupies 1" bay
max. 2x per system

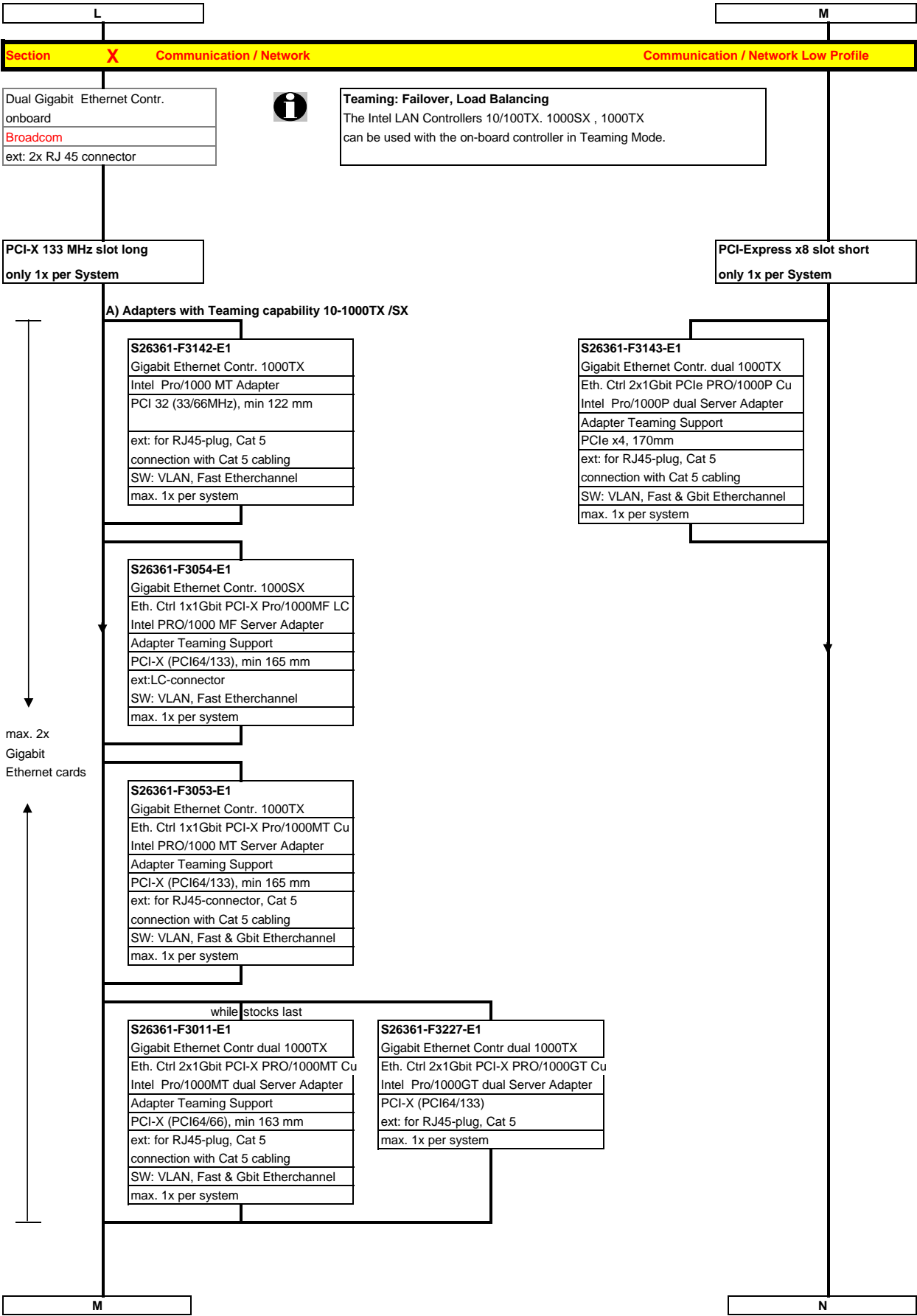
<b>S26361-F3218-E250</b>
Hard disk 250GB
7200rpm,<9.0 ms, 8MB Cache
<b>SATA 3Gb/s</b>
hot plug/hot replace tray
occupies 1" bay
max. 2x per system

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**Section XI System Management Products (RemoteView)**

**S26361-F1790-E221**  
**RemoteView Software V5.0**  
Installation and configuration of  
RemoteView Web and LAN FrontEnd  
RSB, BMC-Manager, RTDS and FreeDOS  
Online manuals

**S26361-F2425-E103**  
**RSB S2 LP 3HU**  
RemoteView Service Board S2  
Low Profile Version with 3 U bracket  
for one **standard** PCI-slot  
incl. cables and RV SW  
max. 1x per system

**S26361-F2425-E305**  
**RSB S2 LP external power supply**  
RemoteView Service Board S2  
low profile external power supply  
including power cable  
with Euro- and Euro socket connector

**Section XIII Miscellaneous**

**S26361-F1652-L4**  
Modem **external** 56kbps (V.90)  
MultiTech  
MT5643ZBA-Global  
international approval  
incl. 2m Telephon cord RJ11/RJ11  
Adapter Plug RJ11/TAE  
Serial Interface cable DB25m / DB9f  
AC-Adapter w. German Power Cord  
occupies one COM port  
max. 1x per system

**i** In connection with rack configurations  
the install variant of the modem  
(S26361-F1652-E4) has to be ordered  
(see rack configurator)

**Section XIV Country specific power cord**

**i** **Options and other peripherals**  
For other options, refer to separate "Product specific options"  
These options are supplied lose with the shipment  
For suitable peripherals for this product, please refer to the section "Peripherals/communication"

**i** **Country specific power cords are not required for rack versions, except for USA&Canada.**  
**Power cords are shipped in a rack version with inlet connector for non-heating apparatus.**  
**Description in english. Both included in basic unit.**  
**(1x with Standard PSU, 2x with hot plug upgrade)**

**i** **T26139-Y1742-E10 USA, Canada**  
For shipments to USA&Canada, you have to order  
one power cord (1,8m, grey) per power supply.

End PRIMERGY RX220

## Change Report

[illegible]